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09/689,222

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Siddhartha Nag

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EXAMINER

SWEARINGEN, JEFFREY R

ART UNIT

PAPER NUMBER

2445

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 09/689,222 | Applicant(s) NAG ET AL. | |
| | Examiner Jeffrey R. Swearingen | Art Unit 2445 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,5,24,25 and 72-97 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,5,24,25 and 72-97 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20081031, 20081031A</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/2008 has been entered.

Response to Arguments

2. Applicant's arguments filed 10/31/2008 have been fully considered but they are not persuasive. The application is eligible for finality on this action, since no claim amendments were made. As a courtesy to Applicant, this action is made non-final to clarify the Office's position.

3. Applicant argues that Chiu in view of Datta failed to teach a *media aggregation manager*. Applicant's specification states "a media aggregation manager is initialized with an expected bandwidth utilization between it and another media aggregation manager." Specification, page 8, lines 15-17. A media aggregation manager "provides application/protocol specific multiplexing/demultiplexing of media traffic onto a pre-allocated reservation protocol session". Specification, page 4, lines 6-8. Chiu reserved bandwidth between two points. Chiu, column 4, lines 30-62 disclose a leased line service which reserved a specific amount of bandwidth for a specific link between two points. Column 4, line 65 of Chiu specifically states the reservation "between a pair of ingress and egress routers". Each router would act as a media aggregation manager. The router "provides application/Protocol specific multiplexing/demultiplexing of media traffic" onto a pre-allocated reservation protocol session, or the initialized bandwidth reservation between two routers or points.

4. Applicant argues that Chiu in view of Datta failed to teach *media aggregation managers that are capable of serving as reservation session aggregation points on behalf of a first user community and a second user community, respectively, where the first user community and the second user community are coupled by a plurality of physical paths*. As shown above, Chiu disclosed reservations between an ingress and an egress router. Each router would be connected to a plurality of points, or a first user

Art Unit: 2445

community and a second user community, where the first user community and the second user community are coupled by a plurality of physical paths. Figure 8 of Chiu specifically shows in item 806 that multiple paths are present for the router based on the topology present in the network.

5. Applicant argues that each *media aggregation manager* is capable of serving as a *reservation session aggregation point* for each respective *user community*. As shown above, Chiu disclosed reservations between an ingress and an egress router. Each router would be connected to a plurality of points, or a first user community and a second user community.

6. Applicant argues that Chiu in view of Datta failed to disclose displaying *second graphical representations for allocating and/or deallocating bandwidth between the first media aggregation manager and the second media aggregation manager*. Datta is a display network monitoring system for current network statistics. See Datta, Figure 4 for an example of a graphical display of network information.

7. Applicant argues that Chiu in view of Datta fails to disclose *displaying graphical representations*. Datta is a display network monitoring system for current network statistics. See Datta, Figure 4 for an example of a graphical display of network information.

8. Applicant argues against the motivation to combine Chiu and Datta. As previously shown in prior office actions, both Datta and Chiu gave motivation for the combination. Datta suggested a need to monitor network characteristics. Chiu changed data flows based on monitoring network congestion. The Office demonstrated that Datta and Chiu were both analogous pieces of prior art - both deal with reservation and allocation of bandwidth. Datta functions to alter the network configuration to respond to short term network characteristics such as congestion, and discusses a need to do this on an on-going basis. Chiu addresses this need since Chiu was designed to reallocate data flows with different levels of bandwidth based on the current level of congestion.

9. Applicant argues that Chiu fails to disclose *displaying second graphical representations for allocating and/or deallocating bandwidth between the first media aggregation manager and second media aggregation manager*. Datta is a display network monitoring system for current network statistics. See

Art Unit: 2445

Datta, Figure 4 for an example of a graphical display of network information. The combination of the graphical display of Datta with the bandwidth allocation of Chiu teaches this limitation.

10. Applicant argues that neither Datta nor Chiu disclose *displaying first graphical representations representing the first media aggregation manager and the second media aggregation manager*. Datta is a display network monitoring system for current network statistics. See Datta, Figure 4 for an example of a graphical display of network information. The combination of the graphical display of Datta with the bandwidth allocation of Chiu teaches this limitation.

11. Applicant argues there is no motivation to combine the references of Datta and Chiu. As previously shown in prior office actions, both Datta and Chiu gave motivation for the combination. Datta suggested a need to monitor network characteristics. Chiu changed data flows based on monitoring network congestion. The Office demonstrated that Datta and Chiu were both analogous pieces of prior art - both deal with reservation and allocation of bandwidth. Datta functions to alter the network configuration to respond to short term network characteristics such as congestion, and discusses a need to do this on an on-going basis. Chiu addresses this need since Chiu was designed to reallocate data flows with different levels of bandwidth based on the current level of congestion.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4, 5, 24, 25, and 72-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta et al. (U.S. Patent No. 6,209,033) in view of Chiu et al. (U.S. Patent No. 6,744,767 B1)

14. In regard to claims 4, 24, 76, 80, 84, 91, Datta disclosed:

displaying first graphical representations of the first media aggregation manager and the second media aggregation manager, wherein the first and second media aggregation managers

Art Unit: 2445

are capable of serving as reservation session aggregation points on behalf of a first user community and a second user community, respectively, the first user community and the second user community coupled by a plurality of physical paths;

displaying a first projected link utilization schedule in response to a first request to analyze the effect of conveying media packets between the first user community and the second user community over a first path of the plurality of physical paths, the first projected link utilization schedule illustrating predicted bandwidth usage for routers associated with the first path;

displaying a second projected link utilization schedule in response to a second request to analyze the effect of conveying media packets between the first user community and the second user community over a second path of the plurality of physical paths, the second projected link utilization schedule illustrating predicted bandwidth usage for routers associated with the second path; and

displaying second graphical representations for allocating or deallocating bandwidth between the first media aggregation manager and second media aggregation manager based on said displayed first projected link utilization schedule and said displayed second projected link utilization schedule.

Datta discloses network capacity and evaluation planning. A link's traffic is measured and compared to its capacity. Simulated changes to the network configuration are then made. An analysis is performed to see whether the new configuration is preferable to the old configuration. See Datta, column 2, lines 22-23, lines 35-40, lines 61-67, column 3, lines 1-10, lines 36-41, column 5, lines 10-25, column 6, lines 22-26, lines 45-65, column 7, lines 20-33.

Datta failed to disclose performing these functions with respect to the reservation and allocation of bandwidth. However, Chiu in the analogous field of art disclosed a reservation system for bandwidth and buffer resources at each router in a path and along alternative paths in case of failure. See Chiu, Abstract. See Chiu, column 5, lines 49-58.

Datta suggests such a combination in column 6, lines 22-32, by discussing a need to monitor current network characteristics, and applying plans on a short term basis to provide

Art Unit: 2445

timely communication services. Chiu further aids this by being designed to reallocate data flows bandwidth for periods of congestion. Chiu, column 3, line 52 - column 4, line 13. Therefore it would have been obvious to modify Datta with Chiu to allow for the reallocation of bandwidth to decrease congestion along selected paths to provide the best possible service to prioritized channels of data users.

15. In regard to claims 5, 25, 77, 81, 85, 94, Datta further disclosed:

overlaying a selected path of the plurality of physical paths onto existing bandwidth allocations to determine a projected link utilization associated with the selected path. Datta discloses comparing an alternate network configuration with the original network configuration in the rejection of claim 4.

16. In regard to claims 72, 74, 78, 82, 86, 95, Datta further disclosed:

displaying the first path and the second path prioritized based upon one or more predetermined factors. See Datta, column 6, lines 21-26.

17. In regard to claims 73, 75, 79, 83, 87, 96, Chiu further disclosed:

the one or more predetermined factors include one or more of: a number of nodes in the first path or the second path; total available bandwidth for the first path or the second path; available communications bandwidth on the first path or the second path; and physical length of travel between nodes that make up the first path or the second path. Chiu, column 13, lines 40-65.

18. In regard to claims 88-89 and 97, Datta further disclosed:

displaying the first user community and the second user community; Figures 10-11
displaying the plurality of physical paths between the first user community and the second user community. Figures 10-11

19. In regard to claims 90-92, Datta further disclosed:

displaying the first group of terminals and the second group of terminals; Figures 10-11

Art Unit: 2445

displaying the plurality of physical paths between the first group of terminals and the second group of terminals. Figures 10-11

Conclusion

- 20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 21. Kidder et al. US 5,903,735
- 22. Delp et al. US 5,996,013
- 23. Maeshima et al. US 6,092,113

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Donaghue can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey R. Swearingen
Examiner
Art Unit 2445

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Primary Examiner, Art Unit 2454